

REMARKS

Entry of the foregoing and reconsideration of the subject application are respectfully requested in light of the amendments above and the comments which follow.

Claims 1-20 were pending in this application. In this response, claims 1, 2, 10-12, and 14 are amended and no claim is canceled or added. Thus, claims 1-20 remain pending.

Support for the foregoing amendments can be found, for example, in at least the following locations in the original disclosure: the original claims and the specification, page 3, line 16 – page 4, line 3, and Figures 1 and 2.

CLAIM OBJECTIONS UNDER DOUBLE PATENTING

The Office Action indicates that if claim 1 is found allowable, claims 10 and 11 would be objected to under 37 C.F.R. § 1.75 as being substantial duplicates thereof.

Applicants respectfully traverse the provisional objection. Regarding claims 1 and 10, the claims cover different scope, because claim 1 is drawn to a cutting tool comprising a tool head, and claim 10 is drawn to the tool head alone. Therefore, the scopes of the claims are not identical, and thus the claims are not duplicates.

Regarding claims 1 and 11, claim 1 recites “horizontally transverse to a longitudinal direction of the blade part,” whereas claim 11 recites “transverse to a longitudinal direction of the blade part.” Therefore, the scopes of the two claims are not substantially identical, because claim 11 includes at least vertical transverse that is not included within the scope of claim 1. Accordingly, the claims are not substantial duplicates, and the objection should be withdrawn.

REJECTIONS UNDER 35 U.S.C. § 103

Claims 1-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,621,547 to Yankoff (hereafter "*Yankoff*") for the reasons presented at page 2 of the Official Action. The Office Action alleges that the tool holder (10) of *Yankoff* renders claims 1-20 obvious. In particular, the Office Action alleges that the tool holder (10) is a tool head; the face opposite the coolant delivery line (28) is a blade part; and the rest of the tool holder (10) is a basic holder part.

Applicants respectfully traverse the rejection. A finding of obviousness under 35 U.S.C. § 103 requires a determination of the scope and content of the prior art, the differences between the invention and the prior art, the level of ordinary skill in the art, and whether the differences are such that the claimed subject matter as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made. *Graham v. John Deere Co.*, 383 U.S. 1 (1966). Applicants submit that every difference between the invention and the prior art has not been determined, and that when the differences are properly determined, it is clear the claimed subject matter as a whole would not have been obvious to one of ordinary skill in the art at the time the invention was made.

Applicants describe a tool head and cutting tool including the tool head, which is detachably connectable to a coupling part of the cutting tool. The tool head includes a basic holder part and blade part. The blade part includes two opposing planar surfaces that are separated by a depth that is shorter than the length and width dimensions of the two opposing planar surfaces, and wherein the depth of the blade part is transverse to a longitudinal direction of the blade part. In a front portion of the blade part, an insert pocket is formed, in which a

cutting insert is fastenable, and in a back portion, which is opposite in the longitudinal direction from the front portion, the blade part is joined to the basic holder part. Further, the tool head has a recess transverse to a longitudinal direction of the blade part, in which recess a tube member is mounted, the tube member having an inlet for connection to a cooling agent source and an outlet for leading the cooling agent in a direction towards the cutting insert. These elements are found, for example, in the four independent claims 1 and 10-12.

Yankoff describes a tool holder (10) connected to a cutting tool via a support bar (14), and as admitted in the Office Action, is not detachably connectable to a coupling part of the cutting tool. The tool holder includes the end portion of the support bar (14), an upper surface of which includes a seat (16) for receiving a cutting insert (18). A clamp (20) is attached to the upper surface of the cutting insert (18) and support bar (14) by a screw (22) to hold the cutting insert (18) in place during cutting operations. *See, e.g.*, col. 8, ll. 27-36. The clamp (20) includes a recess that contains a tube that runs from the edge of the clamp opposite the cutting insert to the edge of the clamp contacting the cutting insert or leading end (21) to spray coolant onto the upper surface of the cutting insert (18). *See, e.g.*, col. 8, ll. 37-54.

Yankoff fails to disclose at least “a blade part” and an insert pocket formed in a front portion of the blade part as recited in claims 1 and 10-12. The Office Action appears to point to the face of the tool holder (10) opposite the coolant delivery line (28) as the claimed “blade part.” However, Applicants do not see anything in the figures of *Yankoff* that meets the definition of “blade part” recited in claims 1 and 10-12. “Blade” in the claims is referring to the three dimensional shape having two opposing planar surfaces with a thin depth between them, and not a two dimensional surface as apparently used by the Office Action to define a “blade part.” In contrast, to the blade part of the claims, *Yankoff* describes a support bar (14) with

substantial thickness without two opposing broad surfaces separated by a thin depth. *See, e.g.*, Figure 2. Further, it would not have been obvious to form the support bar (14) as a “blade part,” because the support bar (14) should have sufficient depth between the front and back surfaces of the support bar to prevent breakage when the cutting tool is in operation.

For arguments sake, even if, as proposed by the Examiner, some part of the tool holder could be considered a “blade part,” the insert pocket is not in a front portion of that part of the tool holder. As explained above, the insert pocket (16) is formed on the top surface of the support bar (14) and the cutting insert (18) is clamped in position by clamp (20) pressing the cutting insert downward onto the insert seat (16). This portion of the tool holder is shaped as a rectangular prism without two broad portions separated by a thin portion. Therefore, even if *Yankoff* had a “blade part,” the insert pocket is not in the “blade part.” Further, it would not have been obvious to modify *Yankoff* to form the inset seat in a “blade part,” because *Yankoff* is designed to include the coolant tube member in the clamp, and thus the clamp must be above the cutting insert to perform properly. Because *Yankoff* uses a clamp placed on top of the cutting insert to hold the cutting insert in position, and for the clamp to provide a pathway for the coolant tube to access the cutting insert, the insert seat would not have been located in a blade part of the tool holder, without destroying the principle of operation of *Yankoff*. The teachings of references are not sufficient to render the claims *prima facie* obvious, where the proposed modification of the prior art would change the principle of operation of the prior art invention being modified. *See* MPEP § 2143.01 (VI).

For at least the above reasons, no *prima facie* case of obviousness has been established for claims 1 and 10-12. Further, dependent claims 2-9 and 13-20, which depend from claims 1

and 10 respectively, are also not obvious for at least the same reasons. Accordingly, Applicants respectfully request withdrawal of the rejections.

CONCLUSION

From the foregoing, further and favorable action in the form of a Notice of Allowance is earnestly solicited. Should the Examiner feel that any issues remain, it is requested that the undersigned be contacted so that any such issues may be adequately addressed and prosecution of the instant application expedited.

Respectfully submitted,

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